

TABLE C.3-7.18.RM  
CALCULATION OF NON-CANCER  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: River/Stream  
Receptor Population: 4-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.5E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.7E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	3.4E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	3.1E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	5.4E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	2.9E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.2E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.6E-04
	Antimony	3.5E+00	mg/kg	3.5E+00	mg/kg	M	6.7E-08	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	1.7E-02
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	5.0E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.7E-01
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	1.2E-05	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.2E-02
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	6.7E-04	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	2.2E-01
	Copper	3.4E+02	mg/kg	3.4E+02	mg/kg	M	6.6E-04	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	1.6E-02
	Lead												
	Manganese	2.0E+03	mg/kg	2.0E+03	mg/kg	M	3.8E-03	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	5.4E-02
	Mercury	6.0E-01	mg/kg	6.0E-01	mg/kg	M	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	3.8E-03
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	6.5E-05	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	7.2E-03
	(Total)												5.0E-01
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.7E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.9E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	3.7E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	3.3E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	5.9E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	3.1E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.5E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.7E-04
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	1.3E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.2E-02
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	9.7E-07	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	9.7E-02
	(Total)												1.4E-01
Total Hazard Index Across All Exposure Routes/Pathways													6E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.  
N/A = Not Applicable  
EPC = Exposure Point Concentration  
Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7  
CALCULATION OF NON-CARCINOGENIC HAZARDS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUG

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: River/Stream  
Receptor Population: 4-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	9.2E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	1.0E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	1.3E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	1.1E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	2.0E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	1.1E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.2E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	5.9E-05
	Antimony	3.5E+00	mg/kg	3.5E+00	mg/kg	M	2.5E-06	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	6.3E-03
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	1.9E-03	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	6.3E-02
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	4.3E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	4.3E-03
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	2.5E-04	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	8.4E-02
	Copper	3.4E+02	mg/kg	3.4E+02	mg/kg	M	2.5E-04	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	6.1E-03
	Lead												
	Manganese	2.0E+03	mg/kg	2.0E+03	mg/kg	M	1.4E-03	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	2.0E-02
	Mercury	6.0E-01	mg/kg	6.0E-01	mg/kg	M	4.3E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.4E-03
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	2.4E-05	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	2.7E-03
	(Total)												1.6E-01
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.0E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.2E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	2.8E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	2.5E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	4.4E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	2.4E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.6E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.3E-04
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	9.5E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	3.2E-02
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	7.3E-07	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	7.3E-02
	(Total)												1.0E-01
Total Hazard Index Across All Exposure Routes/Pathways													3E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.19, Part 2  
CALCULATION OF NON-CANCER  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Wetland  
Receptor Population: 1-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	1.9E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.6E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	3.1E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	4.9E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.8E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	8.6E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	6.0E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	3.0E-05
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.3E-08	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	6.8E-04
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	5.3E-08	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	1.3E-04
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.7E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	5.6E-03
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	1.1E-07	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.1E-04
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	2.1E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	7.0E-03
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	4.8E-06	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	1.2E-04
	Lead												
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	1.1E-05	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	1.5E-04
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	3.6E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.2E-04
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	5.0E-06	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	5.6E-04
	(Total)												1.4E-02
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.0E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.7E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	3.2E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	5.1E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.8E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	9.0E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	6.2E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	3.1E-05
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.5E-08	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	7.4E-04
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	4.0E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.3E-03
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	8.8E-09	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	8.8E-04
	(Total)												3.0E-03
Total Hazard Index Across All Exposure Routes/Pathways													2E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C-7  
CALCULATION OF NON-CANCER HAZARDS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Wetland  
Receptor Population: 1-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	9.7E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	8.1E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	8.0E+00	mg/kg	8.0E+00	mg/kg	M	1.5E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	2.4E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	8.9E-09	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	4.3E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	3.0E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.5E-05
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	6.6E-09	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	3.3E-04
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	2.7E-08	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	8.7E-05
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	8.3E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.8E-03
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	5.5E-08	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	5.5E-05
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	1.0E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	3.5E-03
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	2.4E-06	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	5.9E-05
	Lead												
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	5.3E-08	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	7.6E-05
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	1.8E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	6.0E-05
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	2.5E-06	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	2.8E-04
	(Total)												7.2E-03
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.0E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.7E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	8.0E+00	mg/kg	8.0E+00	mg/kg	M	3.2E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	5.1E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.8E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	9.0E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	6.2E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	3.1E-05
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.5E-08	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	7.4E-04
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	4.0E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.3E-03
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	8.8E-09	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	8.8E-04
	(Total)												3.0E-03
Total Hazard Index Across All Exposure Routes/Pathways													1E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.20.1  
CALCULATION OF NON-CANCER R  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Wetland  
Receptor Population: 1-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	1.8E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.5E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	2.9E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	4.6E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.7E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	8.1E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	5.6E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	2.8E-04
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.2E-07	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	6.2E-03
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	5.0E-07	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	1.2E-03
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.6E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	5.2E-02
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	1.0E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.0E-03
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	1.8E-04	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	6.5E-02
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	4.4E-05	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	1.1E-03
	Lead												
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	1.0E-04	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	1.4E-03
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	3.4E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.1E-03
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	4.7E-05	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	5.2E-03
	(Total)												1.3E-01
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.0E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.7E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	3.1E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	5.0E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.6E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	8.8E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	6.1E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	3.0E-04
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.5E-07	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	7.3E-03
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	3.8E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.3E-02
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	8.6E-08	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	8.6E-03
	(Total)												2.9E-02
Total Hazard Index Across All Exposure Routes/Pathways													2E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C-3  
CALCULATION OF NON-CANCER HAZARDS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Welland  
Receptor Population: 1-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	9.1E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	7.6E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.4E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	2.3E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	8.3E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	4.0E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.8E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.4E-04
	Aroclor 1248	2.8E-01	mg/kg	2.8E-01	mg/kg	M	6.2E-08	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	3.1E-03
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	2.5E-07	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	6.2E-04
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	7.8E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.6E-02
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	8.1E-07	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	5.1E-04
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	9.7E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	3.2E-02
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	2.2E-05	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	5.5E-04
	Lead												
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	5.0E-05	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	7.1E-04
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	1.7E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	5.6E-04
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	2.3E-05	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	2.6E-03
	(Total)												6.7E-02
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.0E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.7E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	3.1E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	5.0E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.8E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	8.8E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	6.1E-08	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	3.0E-04
	Aroclor 1248	2.8E-01	mg/kg	2.8E-01	mg/kg	M	1.5E-07	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	7.3E-03
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	3.9E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.3E-02
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	8.6E-08	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	8.6E-03
	(Total)												2.9E-02
Total Hazard Index Across All Exposure Routes/Pathways													1E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.21.RME  
CALCULATION OF NON-CANCER HAZARD INDEX  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE C03

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Wetland  
Receptor Population: 4-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	7.8E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	6.5E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.2E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	2.0E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	7.1E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.5E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.4E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.2E-04
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	5.3E-08	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	2.7E-03
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	2.1E-07	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	5.3E-04
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	6.7E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.2E-02
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	4.4E-07	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	4.4E-04
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	8.3E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	2.8E-02
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	1.9E-05	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	4.8E-04
	Lead												
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	4.3E-05	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	6.1E-04
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	1.4E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.8E-04
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	2.0E-05	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	2.2E-03
	(Total)												5.8E-02
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	6.1E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	6.7E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.3E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	2.0E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	7.4E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.6E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.5E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.2E-04
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	5.9E-08	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	3.0E-03
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.6E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	5.3E-03
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	3.5E-08	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	3.5E-03
	(Total)												1.2E-02
Total Hazard Index Across All Exposure Routes/Pathways													7E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-1  
CALCULATION OF NON-CANCER HAZARDS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Wetland  
Receptor Population: 4-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.9E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	2.4E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	4.6E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	7.3E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.7E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.3E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	8.8E-07	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	4.5E-05
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	2.0E-08	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	1.0E-03
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	8.0E-08	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	2.0E-04
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	2.5E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	8.3E-03
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	1.7E-07	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.7E-04
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	3.1E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	1.0E-02
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	7.1E-06	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	1.8E-04
	Lead												
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	1.6E-05	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	2.3E-04
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	5.4E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.8E-04
	Vanadium	9.8E+01	mg/kg	9.8E+01	mg/kg	M	7.6E-06	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	8.4E-04
	(Total)												2.2E-02
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	6.0E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	5.0E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	9.6E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	1.5E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	5.5E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.7E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	1.9E-06	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	9.3E-05
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	4.8E-08	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	2.2E-03
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.0E-03
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	2.6E-08	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	2.6E-03
	(Total)												8.9E-03
Total Hazard Index Across All Exposure Routes/Pathways													3E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose



TABLE C.3-7.22.H  
CALCULATION OF NON-CANCER  
REASONABLE MAXIMUM EXPOSURE

WELLS GAH SUPERFUND SITE OUS

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Wetland  
Receptor Population: 4-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	7.2E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	6.1E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.1E-05	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	1.8E-05	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	6.6E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.2E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.2E-05	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.1E-03
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	5.0E-07	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	2.5E-02
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	2.0E-06	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	5.0E-03
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	6.2E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.1E-01
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	4.1E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	4.1E-03
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	7.8E-04	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	2.6E-01
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	1.8E-04	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	4.4E-03
	Lead	2.1E+02	mg/kg	2.1E+02	mg/kg	M	4.0E-04	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	5.7E-03
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	1.3E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.6E-03
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	1.9E-04	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	2.1E-02
	(Total)												5.4E-01
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	7.9E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	6.6E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.3E-05	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	2.0E-05	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	7.3E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.5E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.4E-05	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	1.2E-03
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	5.6E-07	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	2.6E-02
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.8E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	5.2E-02
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	3.6E-07	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	3.6E-02
	(Total)												1.2E-01
Total Hazard Index Across All Exposure Routes/Pathways													7E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE  
CALCULATION OF NON-C (HAZARDS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE 003

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Wetland  
Receptor Population: 4-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.7E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	2.3E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	4.3E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	6.8E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.5E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.2E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	8.3E-08	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	4.2E-04
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.9E-07	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	9.3E-03
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	7.5E-07	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	1.9E-03
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	2.3E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	7.8E-02
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	1.5E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.5E-03
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	2.9E-04	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	9.7E-02
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	6.7E-05	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	1.7E-03
	Lead												
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	1.5E-04	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	2.1E-03
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	5.1E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.7E-03
	Vanadium	9.8E+01	mg/kg	9.8E+01	mg/kg	M	7.0E-05	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	7.8E-03
	(Total)												2.0E-01
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	5.9E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	5.0E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	9.4E-08	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Benzo(k)fluoranthene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	1.5E-05	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	5.4E-07	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.6E-06	mg/kg-day	N/A	N/A	N/A	N/A	N/A
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	1.8E-05	mg/kg-day	2.0E-02	mg/kg-day	N/A	N/A	9.1E-04
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	4.4E-07	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	2.2E-02
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.2E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	3.9E-02
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	2.6E-07	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	2.6E-02
	(Total)												8.8E-02
Total Hazard Index Across All Exposure Routes/Pathways													3E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.23.RME  
CALCULATION OF NON-CANCER RDS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Pond/Lake  
Receptor Population: 1-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	7.1E-08	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	1.8E-04
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	5.1E-03
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	1.5E-07	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.5E-04
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	7.9E-06	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	2.6E-03
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	3.3E-06	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	8.4E-05
	Lead												
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	4.3E-05	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	6.1E-04
	Mercury	3.6E-01	mg/kg	3.6E-01	mg/kg	M	1.8E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	5.9E-05
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	2.6E-06	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	2.6E-04
	(Total)												9.1E-03
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	3.6E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.2E-03
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	1.2E-08	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	1.2E-03
	(Total)												2.4E-03
Total Hazard Index Across All Exposure Routes/Pathways													1E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.1  
CALCULATION OF NON-CANCER HAZARDS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Pond/Lake  
Receptor Population: 1-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	3.6E-08	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	8.9E-05
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	7.6E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.5E-03
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	7.4E-08	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	7.4E-05
	Chromium	1.8E+02	mg/kg	1.8E+02	mg/kg	M	3.9E-08	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	1.3E-03
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	1.7E-06	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	4.2E-05
	Lead												
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	2.1E-05	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	3.0E-04
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	8.9E-09	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	3.0E-05
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	1.3E-06	mg/kg-day	8.0E-03	mg/kg-day	N/A	N/A	1.5E-04
	(Total)												4.5E-03
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	3.6E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.2E-03
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	1.2E-06	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	1.2E-03
	(Total)												2.4E-03
Total Hazard Index Across All Exposure Routes/Pathways													7E-03

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.24.RME  
CALCULATION OF NON-CANCER HAZARD INDEX  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Pond/Lake  
Receptor Population: 1-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	6.6E-07	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	1.7E-03
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.4E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.7E-02
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	1.4E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	1.4E-03
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	7.4E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	2.6E-02
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	3.1E-05	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	7.8E-04
	Lead												
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	4.0E-04	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	5.7E-03
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.7E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	5.5E-04
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	2.4E-05	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	2.7E-03
	(Total)												8.5E-02
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	3.6E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.2E-02
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	1.2E-07	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	1.2E-02
	(Total)												2.3E-02
Total Hazard Index Across All Exposure Routes/Pathways													1E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7  
CALCULATION OF NON-CANCER HAZARDS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Pond/Lake  
Receptor Population: 1-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	3.3E-07	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	8.3E-04
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	7.1E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.4E-02
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	6.9E-07	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	6.9E-04
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	3.7E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	1.2E-02
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	1.6E-05	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	3.9E-04
	Lead												
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	2.0E-04	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	2.8E-03
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	8.3E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.8E-04
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	1.2E-05	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	1.4E-03
	(Total)												4.2E-02
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	3.6E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.2E-02
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	1.2E-07	mg/kg-day	1.0E-06	mg/kg-day	N/A	N/A	1.2E-02
	(Total)												2.3E-02
Total Hazard Index Across All Exposure Routes/Pathways													7E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7.25. RME  
CALCULATION OF NON-CANCER HAZARD INDEX  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Pond/Lake  
Receptor Population: 4-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.8E-07	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	7.1E-04
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	6.1E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.0E-02
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	5.9E-07	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	5.9E-04
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	3.2E-05	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	1.1E-02
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	1.3E-05	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	3.3E-04
	Lead												
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	1.7E-04	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	2.4E-03
	Mercury	3.5E+01	mg/kg	3.5E+01	mg/kg	M	7.1E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.4E-04
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	1.0E-05	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	1.2E-03
	(Total)												3.8E-02
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.9E-03
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	4.7E-08	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	4.7E-03
	(Total)												9.6E-03
Total Hazard Index Across All Exposure Routes/Pathways													5E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7  
CALCULATION OF NON-CANCER HAZARDS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Pond/Lake  
Receptor Population: 4-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	1.1E-07	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	2.7E-04
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	2.3E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	7.6E-03
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	2.2E-07	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	2.2E-04
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	1.2E-06	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	3.9E-03
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	5.0E-06	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	1.3E-04
	Lead												
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	6.4E-05	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	9.1E-04
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.7E-08	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	8.9E-05
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	3.9E-06	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	4.4E-04
	(Total)												1.4E-02
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	3.6E-03
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	3.5E-08	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	3.5E-03
	(Total)												7.2E-03
Total Hazard Index Across All Exposure Routes/Pathways													2E-02

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose



TABLE C.3-7.26.RM  
CALCULATION OF NON-CANCER HAZARDS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Pond/Lake  
Receptor Population: 4-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.7E-06	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	6.6E-03
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	5.7E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	1.9E-01
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	5.5E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	5.5E-03
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	2.9E-04	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	9.8E-02
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	1.2E-04	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	3.1E-03
	Lead												
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	1.6E-03	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	2.3E-02
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	6.6E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	2.2E-03
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	9.8E-05	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	1.1E-02
	(Total)												3.4E-01
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.4E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	4.8E-02
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	4.6E-07	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	4.6E-02
	(Total)												9.4E-02
Total Hazard Index Across All Exposure Routes/Pathways													4E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3  
CALCULATION OF NON-CANCER HAZARDS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Pond/Lake  
Receptor Population: 4-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	1.0E-06	mg/kg-day	4.0E-04	mg/kg-day	N/A	N/A	2.5E-03
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	2.1E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	7.1E-02
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	2.1E-06	mg/kg-day	1.0E-03	mg/kg-day	N/A	N/A	2.1E-03
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	1.1E-04	mg/kg-day	3.0E-03	mg/kg-day	N/A	N/A	3.7E-02
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	4.7E-05	mg/kg-day	4.0E-02	mg/kg-day	N/A	N/A	1.2E-03
	Lead												
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	6.0E-04	mg/kg-day	7.0E-02	mg/kg-day	N/A	N/A	8.5E-03
	Mercury	3.5E+01	mg/kg	3.5E+01	mg/kg	M	2.5E-07	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	8.3E-04
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	3.7E-05	mg/kg-day	9.0E-03	mg/kg-day	N/A	N/A	4.1E-03
	(Total)												1.3E-01
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.1E-05	mg/kg-day	3.0E-04	mg/kg-day	N/A	N/A	3.6E-02
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	3.5E-07	mg/kg-day	1.0E-05	mg/kg-day	N/A	N/A	3.5E-02
	(Total)												7.0E-02
Total Hazard Index Across All Exposure Routes/Pathways													2E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7  
CALCULATION OF NON-CANCER HAZARDS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Fish Tissue  
Exposure Point: Fillet, Reference Locations  
Receptor Population: Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	4,4'-DDE	3.2E-03	mg/kg	3.2E-03	mg/kg	M	3.0E-07	mg/kg-day	N/A	mg/kg-day	N/A	N/A	N/A
	Aroclor-1260	6.3E-02	mg/kg	6.3E-02	mg/kg	M	6.0E-06	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	3.0E-01
	Mercury	5.3E-01	mg/kg	5.3E-01	mg/kg	M	5.1E-05	mg/kg-day	1.0E-04	mg/kg-day	N/A	N/A	5.1E-01
	Selenium	6.4E-01	mg/kg	6.4E-01	mg/kg	M	6.2E-05	mg/kg-day	5.0E-03	mg/kg-day	N/A	N/A	1.2E-02
	(Total)												8.2E-01
Total Hazard Index Across All Exposure Routes/Pathways													8E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7  
CALCULATION OF NON-CANCER HAZARDS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Fish Tissue  
Exposure Point: Fillet, Reference Locations  
Receptor Population: Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	4,4'-DDE	3.2E-03	mg/kg	3.2E-03	mg/kg	M	1.5E-07	mg/kg-day	N/A	mg/kg-day	N/A	N/A	N/A
	Aroclor-1260	6.3E-02	mg/kg	6.3E-02	mg/kg	M	3.0E-06	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	1.5E-01
	Mercury	5.3E-01	mg/kg	5.3E-01	mg/kg	M	2.6E-05	mg/kg-day	1.0E-04	mg/kg-day	N/A	N/A	2.6E-01
	Selenium	6.4E-01	mg/kg	6.4E-01	mg/kg	M	3.1E-05	mg/kg-day	5.0E-03	mg/kg-day	N/A	N/A	6.2E-03
	(Total)												4.1E-01
Total Hazard Index Across All Exposure Routes/Pathways													4E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

- = Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3  
CALCULATION OF NON-CANCER HAZARDS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Fish Tissue  
Exposure Point: Fillet, Reference Locations  
Receptor Population: Recreational User  
Receptor Age: Older Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	4,4'-DDE	3.2E-03	mg/kg	3.2E-03	mg/kg	M	3.4E-07	mg/kg-day	N/A	mg/kg-day	N/A	N/A	N/A
	Aroclor-1260	6.3E-02	mg/kg	6.3E-02	mg/kg	M	6.8E-06	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	3.4E-01
	Mercury	5.3E-01	mg/kg	5.3E-01	mg/kg	M	5.8E-05	mg/kg-day	1.0E-04	mg/kg-day	N/A	N/A	5.8E-01
	Selenium	6.4E-01	mg/kg	6.4E-01	mg/kg	M	7.0E-05	mg/kg-day	5.0E-03	mg/kg-day	N/A	N/A	1.4E-02
	(Total)												9.3E-01
Total Hazard Index Across All Exposure Routes/Pathways													9E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

- = Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-7  
CALCULATION OF NON-CANCER HAZARDS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE 003

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Fish Tissue  
Exposure Point: Fillet, Reference Locations  
Receptor Population: Recreational User  
Receptor Age: Older Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Hazard Calculation (1)	Intake (Non-Cancer)	Intake (Non-Cancer) Units	Reference Dose	Reference Dose Units	Reference Concentration	Reference Concentration Units	Hazard Quotient
Ingestion	4,4'-DDE	3.2E-03	mg/kg	3.2E-03	mg/kg	M	1.7E-07	mg/kg-day	N/A	mg/kg-day	N/A	N/A	N/A
	Aroclor-1260	6.3E-02	mg/kg	6.3E-02	mg/kg	M	3.4E-06	mg/kg-day	2.0E-05	mg/kg-day	N/A	N/A	1.7E-01
	Mercury	5.3E-01	mg/kg	5.3E-01	mg/kg	M	2.9E-05	mg/kg-day	1.0E-04	mg/kg-day	N/A	N/A	2.9E-01
	Selenium	6.4E-01	mg/kg	6.4E-01	mg/kg	M	3.5E-05	mg/kg-day	5.0E-03	mg/kg-day	N/A	N/A	7.0E-03
	(Total)												4.7E-01
Total Hazard Index Across All Exposure Routes/Pathways													5E-01

(1) Medium-Specific (M) EPC selected for hazard calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Hazard Quotient = Non-Cancer Intake / Reference Dose

TABLE C.3-8.1.RME  
CALCULATION OF CANCER RISKS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: River/Stream  
Receptor Population: 1-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	1.2E+01	µg/L	1.2E+01	µg/L	M	2.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	3.6E-08
	Lead										
	Manganese	1.4E+03	µg/L	1.4E+03	µg/L	M	2.8E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	9.9E-02	µg/L	9.9E-02	µg/L	M	2.0E-10	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										3.6E-08
Total Risk Across All Exposure Routes/Pathways											4E-08

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.1.CT  
CALCULATION OF CANCER RISKS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: River/Stream  
Receptor Population: 1-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	1.2E+01	µg/L	1.2E+01	µg/L	M	3.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	5.3E-09
	Lead										
	Manganese	1.4E+03	µg/L	1.4E+03	µg/L	M	4.0E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	9.9E-02	µg/L	9.9E-02	µg/L	M	2.9E-11	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										5.3E-09
Total Risk Across All Exposure Routes/Pathways											5E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor.



TABLE C.3-8.2.RME  
CALCULATION OF CANCER RISKS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: River/Stream  
Receptor Population: 1-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	1.2E+01	µg/L	1.2E+01	µg/L	M	1.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	2.1E-08
	Lead	1.4E+03	µg/L	1.4E+03	µg/L	M	1.6E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	9.9E-02	µg/L	9.9E-02	µg/L	M	1.1E-10	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury										
	(Total)										2.1E-08
Total Risk Across All Exposure Routes/Pathways											2E-08

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.2.CT  
CALCULATION OF CANCER RISKS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: River/Stream  
Receptor Population: 1-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	1.2E+01	µg/L	1.2E+01	µg/L	M	2.3E-09	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	3.5E-09
	Lead										
	Manganese	1.4E+03	µg/L	1.4E+03	µg/L	M	2.7E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	9.9E-02	µg/L	9.9E-02	µg/L	M	1.9E-11	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										3.5E-09
Total Risk Across All Exposure Routes/Pathways											3E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.3.RME  
CALCULATION OF CANCER RISKS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: River/Stream  
Receptor Population: 4-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	1.2E+01	µg/L	1.2E+01	µg/L	M	9.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.5E-07
	Lead	1.4E+03	µg/L	1.4E+03	µg/L	M	1.1E-05	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	9.9E-02	µg/L	9.9E-02	µg/L	M	7.9E-10	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury										
	(Total)										1.5E-07
Total Risk Across All Exposure Routes/Pathways											1E-07

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.3.CT  
CALCULATION OF CANCER RISKS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: River/Stream  
Receptor Population: 4-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	1.2E+01	µg/L	1.2E+01	µg/L	M	1.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.6E-08
	Lead	1.4E+03	µg/L	1.4E+03	µg/L	M	1.2E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	9.9E-02	µg/L	9.9E-02	µg/L	M	8.6E-11	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury										1.6E-08
	(Total)										2E-08
Total Risk Across All Exposure Routes/Pathways											2E-08

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.4.RME  
CALCULATION OF CANCER RISKS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: River/Stream  
Receptor Population: 4-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	1.2E+01	µg/L	1.2E+01	µg/L	M	5.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	8.3E-08
	Lead	1.4E+03	µg/L	1.4E+03	µg/L	M	6.4E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	9.9E-02	µg/L	9.9E-02	µg/L	M	4.5E-10	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury										
	(Total)										8.3E-08
Total Risk Across All Exposure Routes/Pathways											8E-08

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.4.CT  
CALCULATION OF CANCER RISKS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: River/Stream  
Receptor Population: 4-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	1.2E+01	µg/L	1.2E+01	µg/L	M	6.9E-09	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.0E-08
	Lead										
	Manganese	1.4E+03	µg/L	1.4E+03	µg/L	M	8.0E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	9.9E-02	µg/L	9.9E-02	µg/L	M	5.6E-11	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										1.0E-08
Total Risk Across All Exposure Routes/Pathways											1E-08

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.5.RME  
 CALCULATION OF CANCER RISKS  
 REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
 Medium: Surface Water  
 Exposure Medium: Surface Water  
 Exposure Point: Wetland  
 Receptor Population: 1-Day Recreational User  
 Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	3.2E+00	µg/L	3.2E+00	µg/L	M	6.4E-09	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	9.5E-09
	Lead	5.2E+02	µg/L	5.2E+02	µg/L	M	1.0E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	1.3E-01	µg/L	1.3E-01	µg/L	M	2.6E-10	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury										9.5E-09
	(Total)										
Total Risk Across All Exposure Routes/Pathways											1E-08

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.5.CT  
CALCULATION OF CANCER RISKS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: Wetland  
Receptor Population: 1-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	3.2E+00	µg/L	3.2E+00	µg/L	M	9.3E-10	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.4E-09
	Lead	5.2E+02	µg/L	5.2E+02	µg/L	M	1.5E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	1.3E-01	µg/L	1.3E-01	µg/L	M	3.8E-11	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury										
	(Total)										1.4E-09
Total Risk Across All Exposure Routes/Pathways											1E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor



TABLE C.3-3.6.RME  
CALCULATION OF CANCER RISKS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: Wetland  
Receptor Population: 1-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	3.2E+00	µg/L	3.2E+00	µg/L	M	3.6E-09	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	5.5E-09
	Lead	5.2E+02	µg/L	5.2E+02	µg/L	M	5.9E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	1.3E-01	µg/L	1.3E-01	µg/L	M	1.5E-10	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury										
	(Total)										5.5E-09
Total Risk Across All Exposure Routes/Pathways											5E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.6.CT  
CALCULATION OF CANCER RISKS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: Wetland  
Receptor Population: 1-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	3.2E+00	µg/L	3.2E+00	µg/L	M	6.1E-10	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	9.1E-10
	Lead	5.2E+02	µg/L	5.2E+02	µg/L	M	9.9E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	1.3E-01	µg/L	1.3E-01	µg/L	M	2.5E-11	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury										
	(Total)										9.1E-10
Total Risk Across All Exposure Routes/Pathways											9E-10

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.7.RME  
CALCULATION OF CANCER RISKS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: Wetland  
Receptor Population: 4-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	3.2E+00	µg/L	3.2E+00	µg/L	M	2.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	3.8E-08
	Lead										
	Manganese	5.2E+02	µg/L	5.2E+02	µg/L	M	4.1E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	1.3E-01	µg/L	1.3E-01	µg/L	M	1.0E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										3.8E-08
Total Risk Across All Exposure Routes/Pathways											4E-08

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.7.CT  
CALCULATION OF CANCER RISKS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: Wetland  
Receptor Population: 4-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	3.2E+00	µg/L	3.2E+00	µg/L	M	2.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	4.2E-09
	Lead	5.2E+02	µg/L	5.2E+02	µg/L	M	4.5E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	1.3E-01	µg/L	1.3E-01	µg/L	M	1.1E-10	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury										
	(Total)										4.2E-09
Total Risk Across All Exposure Routes/Pathways											4E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

- - Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.8.RME  
CALCULATION OF CANCER RISKS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: Wetland  
Receptor Population: 4-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	3.2E+00	µg/L	3.2E+00	µg/L	M	1.5E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	2.2E-08
	Lead										
	Manganese	5.2E+02	µg/L	5.2E+02	µg/L	M	2.4E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	1.3E-01	µg/L	1.3E-01	µg/L	M	5.9E-10	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										2.2E-08
Total Risk Across All Exposure Routes/Pathways											2E-08

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.8.CT  
CALCULATION OF CANCER RISKS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: Wetland  
Receptor Population: 4-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	Arsenic	3.2E+00	µg/L	3.2E+00	µg/L	M	1.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	2.7E-09
	Lead	5.2E+02	µg/L	5.2E+02	µg/L	M	3.0E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	1.3E-01	µg/L	1.3E-01	µg/L	M	7.4E-11	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury										
	(Total)										2.7E-09
Total Risk Across All Exposure Routes/Pathways											3E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-3.9.RME  
CALCULATION OF CANCER RISKS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframes: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: Pond/Lake  
Receptor Population: Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	bis(2-Ethylhexyl)phtha	2.8E+00	µg/L	2.8E+00	µg/L	M	7.4E-08	mg/kg-day	1.4E-02	(mg/kg-day) <sup>-1</sup>	1.0E-09
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	7.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.1E-07
	Lead										
	Manganese	3.7E+02	µg/L	3.7E+02	µg/L	M	9.8E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	1.2E-01	µg/L	1.2E-01	µg/L	M	3.0E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										1.1E-07
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	µg/L	2.8E+00	µg/L	M	6.7E-07	mg/kg-day	1.4E-02	(mg/kg-day) <sup>-1</sup>	9.4E-09
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	2.6E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	3.9E-08
	Lead										
	Manganese	3.7E+02	µg/L	3.7E+02	µg/L	M	3.5E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	1.2E-01	µg/L	1.2E-01	µg/L	M	1.1E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										4.8E-08
Total Risk Across All Exposure Routes/Pathways											2E-07

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.9.CT  
CALCULATION OF CANCER RISKS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: Pond/Lake  
Receptor Population: Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	bis(2-Ethylhexyl)phtha	2.8E+00	µg/L	2.8E+00	µg/L	M	1.4E-09	mg/kg-day	1.4E-02	(mg/kg-day) <sup>-1</sup>	1.9E-11
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	1.3E-09	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	2.0E-09
	Lead	3.7E+02	µg/L	3.7E+02	µg/L	M	1.8E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	4.3E-02	µg/L	4.3E-02	µg/L	M	2.1E-11	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury										2.0E-09
	(Total)										
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	µg/L	2.8E+00	µg/L	M	1.2E-08	mg/kg-day	1.4E-02	(mg/kg-day) <sup>-1</sup>	1.7E-10
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	4.9E-10	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	7.3E-10
	Lead	3.7E+02	µg/L	3.7E+02	µg/L	M	6.6E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	4.3E-02	µg/L	4.3E-02	µg/L	M	7.6E-12	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury										9.0E-10
	(Total)										
Total Risk Across All Exposure Routes/Pathways											3E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor



TABLE C.3-8.10.RME  
CALCULATION OF CANCER RISKS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: Pond/Lake  
Receptor Population: Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	bis(2-Ethylhexyl)phtha	2.8E+00	µg/L	2.8E+00	µg/L	M	8.7E-08	mg/kg-day	1.4E-02	(mg/kg-day) <sup>-1</sup>	1.2E-09
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	8.4E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.3E-07
	Lead	3.7E+02	µg/L	3.7E+02	µg/L	M	1.1E-05	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	1.2E-01	µg/L	1.2E-01	µg/L	M	3.5E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										1.3E-07
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	µg/L	2.8E+00	µg/L	M	2.9E-07	mg/kg-day	1.4E-02	(mg/kg-day) <sup>-1</sup>	4.0E-09
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	1.1E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.7E-08
	Lead	3.7E+02	µg/L	3.7E+02	µg/L	M	1.5E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	1.2E-01	µg/L	1.2E-01	µg/L	M	4.6E-10	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										2.1E-08
Total Risk Across All Exposure Routes/Pathways											1E-07

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.10.CT  
CALCULATION OF CANCER RISKS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: Pond/Lake  
Receptor Population: Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	bis(2-Ethylhexyl)phtha	2.8E+00	µg/L	2.8E+00	µg/L	M	1.9E-09	mg/kg-day	1.4E-02	(mg/kg-day) <sup>-1</sup>	2.6E-11
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	1.8E-09	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	2.7E-09
	Lead	3.7E+02	µg/L	3.7E+02	µg/L	M	2.4E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	4.3E-02	µg/L	4.3E-02	µg/L	M	2.8E-11	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury										
Dermal	(Total)										2.7E-09
	bis(2-Ethylhexyl)phtha	2.8E+00	µg/L	2.8E+00	µg/L	M	6.1E-09	mg/kg-day	1.4E-02	(mg/kg-day) <sup>-1</sup>	8.6E-11
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	2.4E-10	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	3.6E-10
	Lead	3.7E+02	µg/L	3.7E+02	µg/L	M	3.2E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	4.3E-02	µg/L	4.3E-02	µg/L	M	3.7E-12	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury										
(Total)											4.4E-10
Total Risk Across All Exposure Routes/Pathways											3E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.11.RME  
CALCULATION OF CANCER RISKS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: Pond/Lake  
Receptor Population: 1-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	bis(2-Ethylhexyl)phthalate	2.8E+00	µg/L	2.8E+00	µg/L	M	1.4E-07	mg/kg-day	1.4E-02	(mg/kg-day) <sup>-1</sup>	2.0E-09
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	5.5E-09	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	8.2E-09
	Lead										
	Manganese	3.7E+02	µg/L	3.7E+02	µg/L	M	7.5E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	1.2E-01	µg/L	1.2E-01	µg/L	M	2.3E-10	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										1.0E-08
Total Risk Across All Exposure Routes/Pathways											1E-08

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.11.CT  
CALCULATION OF CANCER RISKS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: Pond/Lake  
Receptor Population: 1-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	µg/L	2.8E+00	µg/L	M	2.1E-08	mg/kg-day	1.4E-02	(mg/kg-day) <sup>-1</sup>	2.9E-10
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	8.0E-10	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.2E-09
	Lead										
	Manganese	3.7E+02	µg/L	3.7E+02	µg/L	M	1.1E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	4.3E-02	µg/L	4.3E-02	µg/L	M	1.2E-11	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										1.5E-09
Total Risk Across All Exposure Routes/Pathways											1E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.12.RME  
CALCULATION OF CANCER RISKS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: Pond/Lake  
Receptor Population: 1-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	µg/L	2.8E+00	µg/L	M	8.1E-08	mg/kg-day	1.4E-02	(mg/kg-day) <sup>-1</sup>	1.1E-09
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	3.1E-09	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	4.7E-09
	Lead										
	Manganese	3.7E+02	µg/L	3.7E+02	µg/L	M	4.3E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	1.2E-01	µg/L	1.2E-01	µg/L	M	1.3E-10	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										5.8E-09
Total Risk Across All Exposure Routes/Pathways											6E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.12.CT  
CALCULATION OF CANCER RISKS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: Pond/Lake  
Receptor Population: 1-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	µg/L	2.8E+00	µg/L	M	1.3E-08	mg/kg-day	1.4E-02	(mg/kg-day) <sup>-1</sup>	1.9E-10
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	5.2E-10	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	7.9E-10
	Lead	3.7E+02	µg/L	3.7E+02	µg/L	M	7.1E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	4.3E-02	µg/L	4.3E-02	µg/L	M	8.2E-12	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury										
	(Total)										9.7E-10
Total Risk Across All Exposure Routes/Pathways											1E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.13.RME  
CALCULATION OF CANCER RISKS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: Pond/Lake  
Receptor Population: 4-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	µg/L	2.8E+00	µg/L	M	5.6E-07	mg/kg-day	1.4E-02	(mg/kg-day) <sup>-1</sup>	7.9E-09
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	2.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	3.3E-08
	Lead	3.7E+02	µg/L	3.7E+02	µg/L	M	3.0E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	1.2E-01	µg/L	1.2E-01	µg/L	M	9.1E-10	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury										
	(Total)										4.1E-08
Total Risk Across All Exposure Routes/Pathways											4E-08

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.13.CT  
CALCULATION OF CANCER RISKS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: Pond/Lake  
Receptor Population: 4-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	µg/L	2.8E+00	µg/L	M	8.2E-08	mg/kg-day	1.4E-02	(mg/kg-day) <sup>-1</sup>	8.6E-10
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	2.4E-09	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	3.6E-09
	Lead	3.7E+02	µg/L	3.7E+02	µg/L	M	3.3E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	4.3E-02	µg/L	4.3E-02	µg/L	M	3.7E-11	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury										
	(Total)										4.5E-09
Total Risk Across All Exposure Routes/Pathways											4E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor



TABLE C.3-8.14.RME  
CALCULATION OF CANCER RISKS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: Pond/Lake  
Receptor Population: 4-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	µg/L	2.8E+00	µg/L	M	3.2E-07	mg/kg-day	1.4E-02	(mg/kg-day) <sup>-1</sup>	4.5E-09
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	1.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.9E-08
	Lead										
	Manganese	3.7E+02	µg/L	3.7E+02	µg/L	M	1.7E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	1.2E-01	µg/L	1.2E-01	µg/L	M	5.2E-10	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										2.3E-08
Total Risk Across All Exposure Routes/Pathways											2E-08

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.14.CT  
CALCULATION OF CANCER RISKS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Surface Water  
Exposure Medium: Surface Water  
Exposure Point: Pond/Lake  
Receptor Population: 4-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Dermal	bis(2-Ethylhexyl)phtha	2.8E+00	µg/L	2.8E+00	µg/L	M	4.0E-08	mg/kg-day	1.4E-02	(mg/kg-day) <sup>-1</sup>	5.7E-10
	Arsenic	2.8E+00	µg/L	2.8E+00	µg/L	M	1.6E-09	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	2.4E-09
	Lead	3.7E+02	µg/L	3.7E+02	µg/L	M	2.1E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	4.3E-02	µg/L	4.3E-02	µg/L	M	2.5E-11	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury										
	(Total)										2.9E-09
Total Risk Across All Exposure Routes/Pathways											3E-09

(1) Medium-Specific (M) EPC selected for risk calculation.

-- Not detected at this exposure point.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.15.RME  
CALCULATION OF CANCER R  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE QJ3

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: River/Stream  
Receptor Population: 1-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	1.7E-08
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.5E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.8E-07
	Benzo(b)fluoranthene	1.6E+00	mg/kg	1.8E+00	mg/kg	M	3.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.3E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.8E+00	mg/kg	M	2.8E-08	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	2.1E-09
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	4.9E-09	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	3.6E-08
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	2.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	1.9E-08
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.9E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Antimony	3.5E+00	mg/kg	3.5E+00	mg/kg	M	6.1E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	4.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	6.9E-07
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	1.1E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	6.2E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Copper	3.4E+02	mg/kg	3.4E+02	mg/kg	M	6.0E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Lead								N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	2.0E+03	mg/kg	2.0E+03	mg/kg	M	3.5E-05	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	6.0E-01	mg/kg	6.0E-01	mg/kg	M	1.0E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	6.0E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										9.7E-07
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	1.7E-08
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.9E-07
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	3.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.4E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	2.9E-08	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	2.1E-09
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	5.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	3.7E-08
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	2.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.0E-08
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.0E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	1.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.7E-07
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	8.5E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										4.5E-07
Total Risk Across All Exposure Routes/Pathways											1E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.15.CT  
CALCULATION OF CANCER RISK  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUG

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: River/Stream  
Receptor Population: 1-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	3.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.4E-09
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	3.6E-09	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	2.6E-08
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	4.6E-09	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	3.4E-09
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	4.1E-09	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	3.0E-10
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	7.2E-10	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	5.3E-09
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	3.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.8E-09
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	4.2E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Antimony	3.5E+00	mg/kg	3.5E+00	mg/kg	M	8.9E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	6.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.0E-07
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	1.6E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	9.0E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Copper	3.4E+02	mg/kg	3.4E+02	mg/kg	M	8.8E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Lead										
	Manganese	2.0E+03	mg/kg	2.0E+03	mg/kg	M	5.0E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	6.0E-01	mg/kg	6.0E-01	mg/kg	M	1.5E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	8.7E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										1.4E-07
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	6.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	5.0E-09
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	7.4E-09	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	5.4E-08
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	9.5E-09	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	7.0E-09
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	8.5E-09	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	6.2E-10
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	1.5E-09	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.1E-08
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	9.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	5.8E-09
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	8.8E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	3.2E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	4.8E-08
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	2.5E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										1.3E-07
Total Risk Across All Exposure Routes/Pathways											3E-07

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.16.RME  
CALCULATION OF CANCER RISKS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE 003

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: River/Stream  
Receptor Population: 1-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	5.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	3.9E-08
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	5.7E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	4.2E-07
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	7.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	5.4E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	6.6E-08	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	4.6E-09
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	1.2E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	8.4E-08
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	6.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	4.5E-08
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	6.6E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Antimony	3.5E+00	mg/kg	3.5E+00	mg/kg	M	1.4E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	1.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.6E-06
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	2.5E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	1.4E-05	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Copper	3.4E+02	mg/kg	3.4E+02	mg/kg	M	1.4E-05	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Lead										
	Manganese	2.0E+03	mg/kg	2.0E+03	mg/kg	M	8.1E-05	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	6.0E-01	mg/kg	6.0E-01	mg/kg	M	2.4E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	1.4E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										2.3E-06
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	5.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	4.2E-08
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	6.3E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	4.6E-07
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	8.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	5.9E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	7.2E-08	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	5.2E-09
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	1.3E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	9.2E-08
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	6.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	4.9E-08
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	7.4E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	2.7E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	4.1E-07
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	2.1E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										1.1E-08
Total Risk Across All Exposure Routes/Pathways											3E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.16.C  
CALCULATION OF CANCER RISK  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: River/Stream  
Receptor Population: 1-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	8.8E-09	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	6.4E-09
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	9.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	7.0E-08
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	1.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	8.9E-09
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	1.1E-08	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	8.0E-10
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	1.9E-09	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.4E-08
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	1.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	7.5E-09
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.1E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Antimony	3.5E+00	mg/kg	3.5E+00	mg/kg	M	2.4E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	2.8E+01	mg/kg	2.8E+01	mg/kg	M	1.6E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	2.7E-07
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	4.1E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	2.4E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Copper	3.4E+02	mg/kg	3.4E+02	mg/kg	M	2.3E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Lead										
	Manganese	2.0E+03	mg/kg	2.0E+03	mg/kg	M	1.3E-05	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	6.0E-01	mg/kg	6.0E-01	mg/kg	M	4.1E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	2.3E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										3.8E-07
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	1.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	1.4E-08
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.1E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.6E-07
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	2.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.0E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	2.4E-08	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	1.7E-09
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	4.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	3.1E-08
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	2.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	1.6E-08
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.5E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	2.8E+01	mg/kg	2.8E+01	mg/kg	M	9.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.4E-07
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	7.0E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										3.7E-07
Total Risk Across All Exposure Routes/Pathways											7E-07

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.17.RME  
CALCULATION OF CANCER RISKS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: River/Stream  
Receptor Population: 4-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	9.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	6.6E-08
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	9.8E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	7.2E-07
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	1.3E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	9.2E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	1.1E-07	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	8.2E-09
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	2.0E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.4E-07
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	1.1E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	7.7E-08
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.2E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Antimony	3.5E+00	mg/kg	3.5E+00	mg/kg	M	2.5E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	1.8E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	2.8E-08
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	4.3E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	2.5E-05	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Copper	3.4E+02	mg/kg	3.4E+02	mg/kg	M	2.4E-05	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Lead										
	Manganese	2.0E+03	mg/kg	2.0E+03	mg/kg	M	1.4E-04	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	6.0E-01	mg/kg	6.0E-01	mg/kg	M	4.2E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	2.4E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										3.9E-06
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	9.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	6.9E-08
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	1.0E-07	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	7.4E-07
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	1.3E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	9.5E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	1.2E-07	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	8.5E-09
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	2.1E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.5E-07
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	1.1E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	8.0E-08
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.2E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	4.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	6.6E-07
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	3.4E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										1.8E-06
Total Risk Across All Exposure Routes/Pathways											6E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.17.C1  
CALCULATION OF CANCER RISK  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: River/Stream  
Receptor Population: 4-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	9.9E-09	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	7.2E-09
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	1.1E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	7.9E-08
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	1.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	1.0E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	1.2E-08	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	9.0E-10
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	2.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.6E-08
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	1.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	8.4E-09
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.3E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Antimony	3.5E+00	mg/kg	3.5E+00	mg/kg	M	2.7E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	2.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	3.0E-07
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	4.7E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	2.7E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Copper	3.4E+02	mg/kg	3.4E+02	mg/kg	M	2.6E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Lead										
	Manganese	2.0E+03	mg/kg	2.0E+03	mg/kg	M	1.5E-05	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	6.0E-01	mg/kg	6.0E-01	mg/kg	M	4.6E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	2.8E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										4.2E-07
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	1.5E-08
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.2E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.6E-07
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	2.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.1E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	2.6E-08	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	1.9E-09
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	4.5E-09	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	3.3E-08
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	2.4E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	1.6E-08
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.6E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	2.6E+01	mg/kg	2.6E+01	mg/kg	M	9.7E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.4E-07
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	7.4E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										4.0E-07
Total Risk Across All Exposure Routes/Pathways											8E-07

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor



TABLE C.3-8.18.R  
CALCULATION OF CANCER RISK  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: River/Stream  
Receptor Population: 4-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.1E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	1.5E-07
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.3E-07	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.7E-06
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	2.9E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.1E-07
	Benzo(k)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	2.9E-07	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	1.9E-08
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	4.8E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	3.4E-07
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	2.5E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	1.8E-07
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.7E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Antimony	3.5E+00	mg/kg	3.5E+00	mg/kg	M	5.7E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	2.8E+01	mg/kg	2.8E+01	mg/kg	M	4.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	6.5E-06
	Cadmium	8.1E+00	mg/kg	8.1E+00	mg/kg	M	9.9E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	5.7E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Copper	3.4E+02	mg/kg	3.4E+02	mg/kg	M	5.8E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Lead								N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	2.0E+03	mg/kg	2.0E+03	mg/kg	M	3.2E-04	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	8.0E-01	mg/kg	8.0E-01	mg/kg	M	9.8E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	5.6E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										9.0E-06
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.3E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	1.7E-07
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.5E-07	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.8E-06
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	3.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.3E-07
	Benzo(k)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	2.9E-07	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	2.1E-08
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	5.0E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	3.7E-07
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	2.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.0E-07
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.0E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	2.8E+01	mg/kg	2.8E+01	mg/kg	M	1.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.8E-06
	Cadmium	8.1E+00	mg/kg	8.1E+00	mg/kg	M	8.3E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										4.4E-06
Total Risk Across All Exposure Routes/Pathways											1E-05

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.18.C  
CALCULATION OF CANCER  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: River/Stream  
Receptor Population: 4-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	2.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	1.9E-08
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.9E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	2.1E-07
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	3.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.7E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	3.3E-08	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	2.4E-09
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	5.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	4.2E-08
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	3.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.3E-08
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.4E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Antimony	3.5E+00	mg/kg	3.5E+00	mg/kg	M	7.2E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	2.8E+01	mg/kg	2.8E+01	mg/kg	M	5.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	8.1E-07
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	1.2E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Chromium	3.5E+02	mg/kg	3.5E+02	mg/kg	M	7.2E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Copper	3.4E+02	mg/kg	3.4E+02	mg/kg	M	7.0E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Lead										
	Manganese	2.0E+03	mg/kg	2.0E+03	mg/kg	M	4.0E-05	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	6.0E-01	mg/kg	6.0E-01	mg/kg	M	1.2E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Vanadium	3.4E+01	mg/kg	3.4E+01	mg/kg	M	7.0E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										1.1E-06
Dermal	Benzo(a)anthracene	1.3E+00	mg/kg	1.3E+00	mg/kg	M	5.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	4.2E-08
	Benzo(a)pyrene	1.4E+00	mg/kg	1.4E+00	mg/kg	M	6.3E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	4.6E-07
	Benzo(b)fluoranthene	1.8E+00	mg/kg	1.8E+00	mg/kg	M	8.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	5.9E-08
	Benzo(k)fluoranthene	1.6E+00	mg/kg	1.6E+00	mg/kg	M	7.2E-08	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	5.2E-09
	Dibenz(a,h)anthracene	2.8E-01	mg/kg	2.8E-01	mg/kg	M	1.3E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	9.2E-08
	Indeno(1,2,3-cd)pyrene	1.5E+00	mg/kg	1.5E+00	mg/kg	M	8.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	4.9E-08
	Phenanthrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	7.4E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	2.8E+01	mg/kg	2.8E+01	mg/kg	M	2.7E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	4.1E-07
	Cadmium	6.1E+00	mg/kg	6.1E+00	mg/kg	M	2.1E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										1.1E-06
Total Risk Across All Exposure Routes/Pathways											2E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.  
N/A = Not Applicable  
EPC = Exposure Point Concentration  
Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.19.RME  
CALCULATION OF CANCER RISK  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Welland  
Receptor Population: 1-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	6.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	4.9E-08
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	5.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	4.1E-07
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.1E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	7.7E-08
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	1.7E-07	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	1.2E-08
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	6.1E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	4.5E-08
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.2E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.0E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	4.6E-09	mg/kg-day	2.0E+00	(mg/kg-day) <sup>-1</sup>	9.1E-09
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	1.8E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	5.7E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	8.6E-07
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	3.8E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	7.2E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	1.6E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Lead										
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	3.7E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	1.2E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	1.7E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										1.5E-08
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	6.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	5.0E-08
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	5.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	4.2E-07
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.1E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	8.0E-08
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	1.7E-07	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	1.3E-08
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	6.3E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	4.6E-08
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.2E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.1E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	5.1E-09	mg/kg-day	2.0E+00	(mg/kg-day) <sup>-1</sup>	1.0E-08
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	2.1E-07
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	3.0E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										8.6E-07
Total Risk Across All Exposure Routes/Pathways											2E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.19.CT  
CALCULATION OF CANCER RISK  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Wetland  
Receptor Population: 1-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	9.7E-09	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	7.1E-08
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	8.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	5.9E-08
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	1.1E-08
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	2.4E-08	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	1.8E-09
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	8.9E-10	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	6.5E-09
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	4.3E-09	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	3.2E-09
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	3.0E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	6.6E-10	mg/kg-day	1.0E+00	(mg/kg-day) <sup>-1</sup>	6.6E-10
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	2.7E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	8.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.2E-07
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	5.5E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	1.0E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	2.4E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Lead	2.1E+02	mg/kg	2.1E+02	mg/kg	M	5.3E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	7.1E-01	mg/kg	7.1E-01	mg/kg	M	1.8E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	9.9E+01	mg/kg	9.9E+01	mg/kg	M	2.5E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Vanadium										N/A
	(Total)										2.1E-07
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	1.5E-08
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.7E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.2E-07
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	3.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.3E-08
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	5.1E-08	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	3.7E-09
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.8E-09	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.3E-08
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	9.0E-09	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	6.6E-09
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	6.2E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.5E-09	mg/kg-day	1.0E+00	(mg/kg-day) <sup>-1</sup>	1.5E-09
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	4.0E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	6.0E-08
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	8.8E-10	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										2.5E-07
Total Risk Across All Exposure Routes/Pathways											5E-07

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.20.R1  
CALCULATION OF CANCER RISK  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Wetland  
Receptor Population: 1-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	1.6E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	1.1E-07
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.3E-07	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	9.5E-07
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	2.5E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	1.8E-07
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	3.9E-07	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	2.9E-08
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.4E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.0E-07
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	6.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	5.1E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	4.8E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.1E-08	mg/kg-day	2.0E+00	(mg/kg-day) <sup>-1</sup>	2.1E-08
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	4.3E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	2.0E-06
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	8.8E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	1.7E-05	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	3.8E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Lead										
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	8.5E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	2.9E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	4.0E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										3.4E-06
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	1.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	1.2E-07
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.4E-07	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.0E-06
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	2.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.0E-07
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	4.3E-07	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	3.1E-08
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.8E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.1E-07
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	7.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	5.5E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	5.2E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.3E-08	mg/kg-day	2.0E+00	(mg/kg-day) <sup>-1</sup>	2.5E-08
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	3.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	5.0E-07
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	7.4E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										2.1E-08
Total Risk Across All Exposure Routes/Pathways											6E-08

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.20  
CALCULATION OF CANCER  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUG

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Wetland  
Receptor Population: 1-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	1.9E-08
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	2.2E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.6E-07
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	4.1E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	3.0E-08
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	6.5E-08	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	4.8E-09
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.4E-09	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.7E-08
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.2E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	8.4E-09
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	7.9E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.8E-09	mg/kg-day	1.0E+00	(mg/kg-day) <sup>-1</sup>	1.8E-09
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	7.1E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	2.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	3.3E-07
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	1.5E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	2.8E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	6.3E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Lead										
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	1.4E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	4.8E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	6.7E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										5.7E-07
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	5.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	4.1E-08
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	4.7E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	3.4E-07
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	9.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	6.5E-08
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	1.4E-07	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	1.0E-08
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	5.2E-09	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	3.8E-08
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	1.8E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	1.7E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	4.2E-09	mg/kg-day	1.0E+00	(mg/kg-day) <sup>-1</sup>	4.2E-09
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.7E-07
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	2.5E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										6.9E-07
Total Risk Across All Exposure Routes/Pathways											1E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-B.21.RME  
CALCULATION OF CANCER  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Wetland  
Receptor Population: 4-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	1.9E-07
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	2.2E-07	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.6E-06
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	4.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	3.1E-07
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	6.7E-07	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	4.9E-08
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.4E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.8E-07
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	8.7E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	8.2E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.8E-08	mg/kg-day	2.0E+00	(mg/kg-day) <sup>-1</sup>	3.6E-08
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	7.3E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	2.3E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	3.4E-06
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	1.5E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	2.9E-05	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	6.5E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Lead										
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	1.5E-05	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	5.0E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	6.9E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										5.9E-06
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.0E-07
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	2.3E-07	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.7E-06
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	4.4E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	3.2E-07
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	6.9E-07	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	5.1E-08
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.5E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.8E-07
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	9.0E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	8.5E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	2.0E-08	mg/kg-day	2.0E+00	(mg/kg-day) <sup>-1</sup>	4.1E-08
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	5.5E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	8.2E-07
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	1.2E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										3.4E-06
Total Risk Across All Exposure Routes/Pathways											9E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.21.UT  
CALCULATION OF CANCER RISKS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Wetland  
Receptor Population: 4-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	2.9E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.1E-08
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	2.4E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.8E-07
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	4.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	3.4E-08
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	7.3E-08	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	5.3E-09
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.7E-09	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.9E-08
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	1.3E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	9.5E-09
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	8.9E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	2.0E-09	mg/kg-day	1.0E+00	(mg/kg-day) <sup>-1</sup>	2.0E-09
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	8.0E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	2.5E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	3.7E-07
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	1.7E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	3.1E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	7.1E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Lead										
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	1.6E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	5.4E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	7.6E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										6.4E-07
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	6.0E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	4.4E-08
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	5.0E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	3.7E-07
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	9.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	7.0E-08
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	1.5E-07	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	1.1E-08
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	5.5E-09	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	4.0E-08
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.7E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.0E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	1.9E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	4.5E-09	mg/kg-day	1.0E+00	(mg/kg-day) <sup>-1</sup>	4.5E-09
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.8E-07
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	2.6E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										7.4E-07
Total Risk Across All Exposure Routes/Pathways											1E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor



TABLE C.3-8.22.RME  
CALCULATION OF CANCER RISK  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OJ3

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Wetland  
Receptor Population: 4-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	6.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	4.5E-07
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	5.2E-07	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	3.8E-06
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	9.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	7.2E-07
	Benzo(k)fluoranthene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	1.8E-06	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	1.1E-07
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	5.7E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	4.2E-07
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	2.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.0E-07
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	1.9E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	4.3E-08	mg/kg-day	2.0E+00	(mg/kg-day) <sup>-1</sup>	8.5E-08
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	1.7E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	5.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	8.0E-06
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	3.5E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	6.7E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	1.5E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Lead										
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	3.4E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	1.2E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	1.6E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										1.4E-05
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	6.8E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	5.0E-07
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	5.7E-07	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	4.1E-06
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.1E-06	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	7.8E-07
	Benzo(k)fluoranthene	9.8E+00	mg/kg	9.8E+00	mg/kg	M	1.7E-06	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	1.2E-07
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	6.2E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	4.5E-07
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.0E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.2E-07
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.1E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	5.0E-08	mg/kg-day	2.0E+00	(mg/kg-day) <sup>-1</sup>	1.0E-07
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	1.3E-06	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	2.0E-06
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	3.0E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										8.3E-06
Total Risk Across All Exposure Routes/Pathways											2E-05

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.22.C  
CALCULATION OF CANCER RISK  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Wetland  
Receptor Population: 4-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	7.8E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	5.7E-08
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	6.8E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	4.7E-07
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	1.2E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	9.0E-08
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	2.0E-07	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	1.4E-08
	Dibenz(a,h)anthracene	3.6E-01	mg/kg	3.5E-01	mg/kg	M	7.1E-09	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	5.2E-08
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	3.5E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.5E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	2.4E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	5.3E-09	mg/kg-day	1.0E+00	(mg/kg-day) <sup>-1</sup>	5.3E-09
	Antimony	1.0E+00	mg/kg	1.0E+00	mg/kg	M	2.1E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	6.7E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.0E-06
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	4.4E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Chromium	4.1E+02	mg/kg	4.1E+02	mg/kg	M	8.3E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Copper	9.3E+01	mg/kg	9.3E+01	mg/kg	M	1.9E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Lead								N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	2.1E+02	mg/kg	2.1E+02	mg/kg	M	4.3E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	7.1E-01	mg/kg	7.1E-01	mg/kg	M	1.4E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Vanadium	9.9E+01	mg/kg	9.9E+01	mg/kg	M	2.0E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	1.7E-06
	(Total)										
Dermal	Benzo(a)anthracene	3.8E+00	mg/kg	3.8E+00	mg/kg	M	1.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	1.2E-07
	Benzo(a)pyrene	3.2E+00	mg/kg	3.2E+00	mg/kg	M	1.4E-07	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.0E-06
	Benzo(b)fluoranthene	6.0E+00	mg/kg	6.0E+00	mg/kg	M	2.7E-07	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	2.0E-07
	Benzo(k)fluoranthene	9.6E+00	mg/kg	9.6E+00	mg/kg	M	4.3E-07	mg/kg-day	7.3E-02	(mg/kg-day) <sup>-1</sup>	3.1E-08
	Dibenz(a,h)anthracene	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.6E-08	mg/kg-day	7.3E+00	(mg/kg-day) <sup>-1</sup>	1.1E-07
	Indeno(1,2,3-cd)pyrene	1.7E+00	mg/kg	1.7E+00	mg/kg	M	7.6E-08	mg/kg-day	7.3E-01	(mg/kg-day) <sup>-1</sup>	5.5E-08
	Phenanthrene	1.2E+01	mg/kg	1.2E+01	mg/kg	M	5.2E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Aroclor 1248	2.6E-01	mg/kg	2.6E-01	mg/kg	M	1.3E-08	mg/kg-day	1.0E+00	(mg/kg-day) <sup>-1</sup>	1.3E-08
	Arsenic	3.3E+01	mg/kg	3.3E+01	mg/kg	M	3.4E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	5.0E-07
	Cadmium	2.2E+00	mg/kg	2.2E+00	mg/kg	M	7.4E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										2.1E-06
Total Risk Across All Exposure Routes/Pathways											4E-08

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.23.RME  
CALCULATION OF CANCER RISKS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Pond/Lake  
Receptor Population: 1-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.4E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	5.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	7.8E-07
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	5.1E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	2.7E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	1.1E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Lead										
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	1.5E-05	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	8.1E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	9.0E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										7.8E-07
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.2E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.9E-07
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	4.0E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										1.9E-07
Total Risk Across All Exposure Routes/Pathways											1E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.23.CT  
CALCULATION OF CANCER RISKS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Pond/Lake  
Receptor Population: 1-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	3.6E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	1.1E-07 N/A N/A
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	7.6E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	7.4E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	3.9E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	1.7E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A N/A N/A
	Lead										
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	2.1E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	8.9E-10	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	1.3E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	1.1E-07
	(Total)										
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	3.6E-08	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	5.5E-08
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	1.2E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										5.5E-08
Total Risk Across All Exposure Routes/Pathways											2E-07

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.24.RME  
CALCULATION OF CANCER RISKS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OUS

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Pond/Lake  
Receptor Population: 1-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	5.7E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	1.8E-06 N/A N/A N/A N/A N/A N/A 1.6E-06
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.2E-06	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	1.2E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	8.3E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	2.7E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Lead	8.4E+02	mg/kg	8.4E+02	mg/kg	M	3.4E-05	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Manganese	3.5E-01	mg/kg	3.5E-01	mg/kg	M	1.4E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Mercury	5.2E+01	mg/kg	5.2E+01	mg/kg	M	2.1E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
Dermal	(Total)										
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	3.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	4.6E-07
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	9.9E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										4.6E-07
Total Risk Across All Exposure Routes/Pathways											2E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.24.CT  
CALCULATION OF CANCER RISKS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Pond/Lake  
Receptor Population: 1-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	9.5E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	3.0E-07
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	2.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	N/A
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	2.0E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	1.1E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	4.5E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Lead										
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	5.7E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.4E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	3.5E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	3.0E-07
	(Total)										
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.5E-07
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	3.3E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										1.5E-07
Total Risk Across All Exposure Routes/Pathways											5E-07

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.25.RME  
CALCULATION OF CANCER RISKS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Pond/Lake  
Receptor Population: 4-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	9.8E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	3.1E-06 N/A N/A N/A N/A N/A N/A 3.1E-06
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	2.1E-06	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	2.0E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	1.1E-05	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	4.6E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Lead										
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	5.8E-05	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.4E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	3.6E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	(Total)										
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	5.0E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	7.5E-07
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	1.6E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										7.5E-07
Total Risk Across All Exposure Routes/Pathways											4E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.25.CT  
CALCULATION OF CANCER RISKS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Pond/Lake  
Receptor Population: 4-Day Recreational User  
Receptor Age: Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	1.1E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	3.4E-07
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	2.3E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	2.2E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	1.2E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	5.0E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Lead										N/A
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	6.4E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	2.7E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	3.9E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										3.4E-07
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.6E-07
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	3.5E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										1.6E-07
Total Risk Across All Exposure Routes/Pathways											5E-07

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor



TABLE C.3-8.26.RME  
CALCULATION OF CANCER RISKS  
REASONABLE MAXIMUM EXPOSURE

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Pond/Lake  
Receptor Population: 4-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.3E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	7.3E-06
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	4.9E-06	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	4.7E-07	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	2.5E-05	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	1.1E-05	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	
	Lead										N/A
	Manganese	8.4E+02	mg/kg	8.4E+02	mg/kg	M	1.4E-04	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	3.5E-01	mg/kg	3.5E-01	mg/kg	M	5.7E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Vanadium	5.2E+01	mg/kg	5.2E+01	mg/kg	M	8.4E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										7.3E-06
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	1.2E-06	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	1.8E-06
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	4.0E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										1.8E-06
Total Risk Across All Exposure Routes/Pathways											9E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor

TABLE C.3-8.26.CT  
CALCULATION OF CANCER RISKS  
CENTRAL TENDENCY

WELLS G&H SUPERFUND SITE OU3

Scenario Timeframe: Current/Future  
Medium: Sediment  
Exposure Medium: Sediment  
Exposure Point: Pond/Lake  
Receptor Population: 4-Day Recreational User  
Receptor Age: Young Child

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation (1)	Intake (Cancer)	Intake (Cancer) Units	Cancer Slope Factor	Cancer Slope Factor Units	Cancer Risk
Ingestion	Antimony	1.4E+00	mg/kg	1.4E+00	mg/kg	M	2.8E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	9.1E-07
	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	6.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	N/A
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	5.9E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Chromium	1.6E+02	mg/kg	1.6E+02	mg/kg	M	3.2E-08	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Copper	6.6E+01	mg/kg	6.6E+01	mg/kg	M	1.3E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Lead	8.4E+02	mg/kg	8.4E+02	mg/kg	M	1.7E-05	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Manganese	3.5E-01	mg/kg	3.5E-01	mg/kg	M	7.1E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Mercury	5.2E+01	mg/kg	5.2E+01	mg/kg	M	1.0E-06	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	Vanadium										9.1E-07
	(Total)										
Dermal	Arsenic	3.0E+01	mg/kg	3.0E+01	mg/kg	M	3.1E-07	mg/kg-day	1.5E+00	(mg/kg-day) <sup>-1</sup>	4.6E-07
	Cadmium	2.9E+00	mg/kg	2.9E+00	mg/kg	M	9.9E-09	mg/kg-day	N/A	(mg/kg-day) <sup>-1</sup>	N/A
	(Total)										4.6E-07
Total Risk Across All Exposure Routes/Pathways											1E-06

(1) Medium-Specific (M) EPC selected for hazard calculation.

N/A = Not Applicable

EPC = Exposure Point Concentration

Cancer Risk = Cancer Intake x Cancer Slope Factor